Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for validating engine and motor velocities in a vehicle ~~having~~ including an engine and ~~at least one~~ a first motor arranged in a vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and the velocity of the first motor, the engine and the first motor each being operable to output torque to at least one vehicle wheel, the method comprising:

measuring engine speed, thereby facilitating a determination of engine velocity;

measuring the velocity of a first motor; and

using the determined engine velocity and the measured velocity of the first motor in a first equation, the first equation including the use of a first velocity relationship mathematically relating the engine velocity and the velocity of the first motor based on the vehicle architecture, the first equation being determinative of whether a mathematical combination of at least the engine velocity and the velocity of the first motor is within a first predetermined speed range, the engine velocity and the velocity of the first motor being validated when the mathematical combination of at least the engine velocity and the velocity of the first motor is within the first predetermined speed range.

2. (original) The method of claim 1, further comprising determining vehicle speed and using the determined vehicle speed in at least one additional equation when the mathematical combination of the engine velocity and the velocity of the first motor is not within the first predetermined speed range.

3. (original) The method of claim 1, wherein the first velocity relationship is a ratio of the engine velocity to the velocity of the first motor.

4. (original) The method of claim 1, wherein the at least one additional equation includes a second equation, the second equation being determinative of whether a

mathematical combination of the velocity of the first motor and the determined vehicle speed is within a second predetermined speed range.

5. (original) The method of claim 4, wherein determining the vehicle speed comprises measuring the speed of each of two vehicle drive wheels and calculating a vehicle speed based on a mathematical average of the two measured speeds.

6. (original) The method of claim 5, further comprising:

calculating the second equation a first time, the determined vehicle speed being given a positive sign in the first calculation of the second equation; and

calculating the second equation a second time, the determined vehicle speed being given a negative sign in the second calculation of the second equation, the velocity of the first motor being validated when each calculation of the second equation indicates that the mathematical combination of the velocity of the first motor and the determined vehicle speed is within the second predetermined speed range.

7. (original) The method of claim 6, wherein the at least one additional equation further includes a third equation, the third equation being determinative of whether a mathematical combination of the engine velocity and the determined vehicle speed is within a third predetermined speed range.

8. (original) The method of claim 7, further comprising:

calculating the third equation a first time, the determined vehicle speed being given a positive sign in the first calculation of the third equation; and

calculating the third equation a second time, the determined vehicle speed being given a negative sign in the second calculation of the third equation, the engine velocity being validated when each calculation of the third equation indicates that the mathematical combination of the engine velocity and the determined vehicle speed is within the third predetermined speed range.

9. (currently amended) The method of claim 8, the vehicle further including a second motor arranged in the vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and a velocity of the second motor, the second motor being operable to output torque to at least one vehicle wheel, the method further comprising measuring the velocity of [[a]] the second motor, and wherein the first equation further includes the use of a second velocity relationship mathematically relating the engine velocity and the velocity of the second motor based on the vehicle architecture, the first equation being determinative of whether a mathematical combination of the engine velocity, the velocity of the first motor, and the velocity of the second motor is within the first predetermined speed range, the engine velocity, the velocity of the first motor, and the velocity of the second motor being validated when the mathematical combination of the engine velocity, the velocity of the first motor, and the velocity of the second motor is within the first predetermined speed range.

10. (currently amended) A method for validating engine and motor velocities in a vehicle ~~having~~ including an engine, a first motor, and a second motor arranged in a vehicle architecture such that at least one known mathematical relationship exists between the engine velocity and each of the velocities of the first and second motors, the engine and the first and second motors each being operable to output torque to at least one vehicle wheel, the method comprising:

measuring engine speed, thereby facilitating a determination of engine velocity;

measuring the velocity of the first motor;

measuring the velocity of the second motor;

mathematically combining the engine velocity, the velocity of the first motor, and the velocity of the second motor to generate a first combined speed term;

comparing the first combined speed term to a first predetermined speed range, the engine velocity, the velocity of the first motor, and the velocity of the second motor being validated when the first combined speed term is within the first predetermined speed range.

11. (currently amended) The method of claim 10, wherein comparing the first combined speed term to the first predetermined speed range is defined by:

$|\omega_E - (R_{E/M1})\ \omega_{M1} - (R_{E/M2})\ \omega_{M2}| \leq K_1$, where ω_E is the engine velocity, ω_{M1} is the velocity of the first motor, ω_{M2} is the velocity of the second motor, $R_{E/M1}$ is a ratio of the engine velocity to the velocity of the first motor, $R_{E/M2}$ is a ratio of the engine velocity to the velocity of the second motor, and K_1 is a first predetermined speed.

12. (original) The method of claim 10, further comprising:

determining vehicle speed;

mathematically combining the velocity of the second motor and the determined vehicle speed to generate a second combined speed term; and

comparing the second combined speed term to a second predetermined speed range, the velocity of the second motor being validated when the second combined speed term is within the second combined speed range.

13. (original) The method of claim 12, wherein determining vehicle speed comprises measuring the speed of each of two vehicle drive wheels and calculating a vehicle speed based on a mathematical average of the two measured speeds.

14. (original) The method of claim 12, wherein comparing the second combined speed term to the second predetermined speed range is defined by:

$|\omega_{M2} - (C_1)\ V_{VEH}| < K_2$, where ω_{M2} is the velocity of the second motor, C_1 is a constant used to change units of vehicle velocity into radians per second, V_{VEH} is the determined vehicle velocity, and K_2 is a second predetermined speed.

15. (original) The method of claim 12, wherein the second combined speed term is generated twice, a first time with the determined vehicle speed being given a positive sign, and a second time with the determined vehicle speed being given a negative sign, and wherein the velocity of the second motor is validated only when both of the generated second combined speed terms are within the second predetermined speed range.

16. (original) The method of claim 12, further comprising:

mathematically combining the engine velocity, the velocity of the first motor, and the determined vehicle speed to generate a third combined speed term;

comparing the third combined speed term to a third predetermined speed range, the engine velocity and the velocity of the first motor being validated when the third combined speed term is within the third determined speed range.

17. (original) The method of claim 16, wherein the third combined speed term is generated twice, a first time with the determined vehicle speed being given a positive sign, and a second time with the determined vehicle speed being given a negative sign, and wherein the engine velocity and the velocity of the first motor are validated only when both of the generated third combined speed terms are within the third combined speed range.

18. (original) The method of claim 16, wherein comparing the third combined speed term to the third predetermined speed range is defined by:

$|\omega_E - (R_{E/M1})\,\omega_{M1} - (C_1)\,V_{VEH}| \leq K_3$, where ω_E is the engine velocity, ω_{M1} is the velocity of the first motor, $R_{E/M1}$ is a ratio of the engine velocity to the velocity of the first motor, C_1 is a constant used to change units of vehicle velocity into radians per second, V_{VEH} is the determined vehicle velocity, and K_3 is a third predetermined speed.

19. (original) The method of claim 18, further comprising determining whether the engine speed, the velocity of the first motor, the velocity of the second motor, and the determined vehicle speed are each within a corresponding predetermined range prior to generating any of the combined speed terms.

20. (withdrawn) A system for validating engine and motor velocities in a vehicle having an engine and at least one motor, the system comprising:

a first sensor configured to measure engine speed, thereby facilitating a determination of engine velocity;

a second sensor configured to measure the velocity of a first motor; and

a controller in communication with the first and second sensors, and configured to apply a preprogrammed algorithm to at least the engine velocity and the velocity of the first motor, the preprogrammed algorithm including a determination of whether a mathematical combination of at least the engine velocity and the velocity of the first motor is within a first predetermined speed range, the engine velocity and the velocity of the first motor being validated when the mathematical combination is within the first predetermined speed range.

21. (withdrawn) The system of claim 20, further comprising a third sensor in communication with the controller, and configured to measure the velocity of a second motor, and wherein the preprogrammed algorithm is further applied to the velocity of the second motor, and the mathematical combination includes engine velocity, the velocity of the first motor, and the velocity of the second motor, the engine velocity, the velocity of the first motor, and the velocity of the second motor being validated when the mathematical combination is within the first predetermined speed range.

22. (withdrawn) The system of claim 21, further comprising a fourth sensor and a fifth sensor, the fourth and fifth sensors each being in communication with the controller, and configured to measure the speed of a vehicle drive wheel, thereby facilitating a determination of vehicle speed, and wherein the controller is further configured to apply a preprogrammed algorithm to the velocity of the second motor and the determined vehicle speed, the preprogrammed algorithm including a determination of whether a mathematical combination of the velocity of the second motor and the determined vehicle speed is within a second predetermined speed range, the velocity of the second motor being validated when the mathematical combination of the velocity of the second motor and the determined vehicle speed is within the second predetermined speed range.

23. (withdrawn) The system of claim 22, wherein the controller is further configured to apply a preprogrammed algorithm to the engine velocity, the velocity of the first motor, and the determined vehicle velocity, the preprogrammed algorithm including a determination of whether a mathematical combination of the engine velocity, the velocity of

the first motor and the determined vehicle speed is within a third predetermined speed range, the engine velocity and the velocity of the first motor being validated when the mathematical combination of the engine velocity, the velocity of the first motor, and the determined vehicle speed is within the third predetermined speed range.